

REMARKS

The present remarks are responsive to the Official Action mailed August 8, 2005. Enclosed herewith is a two-month extension petition to reset the deadline for responding to and including January 9, 2006, January 8, 2006 being a Sunday. In view of the following remarks, reconsideration of the Examiner's rejections and notice of allowance of all pending claims is respectfully requested.

Claims 10, 11, and 13-27 are currently pending in the present application. Each of those claims has been rejected.

As an initial matter, Applicants note with appreciation the Examiner's indication that amended claim 15 is sufficient to overcome the 35 U.S.C. § 112 rejection set forth in the previous Official Action. Applicants also note with appreciation the Examiner's indication that Applicants' previous remarks were sufficient to overcome the claim rejections over U.S. Patent No. 4,676,903 to Lampenius et al. ("Lampenius"). Nevertheless, it appears that the Examiner has presented new 35 U.S.C. § 103 rejections in this nonfinal action. These rejections will be discuss in due course.

First, however, the Examiner has rejected claim 24 under 35 U.S.C. § 112, second paragraph, as being indefinite or failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. In this regard, claim 24 has been amended to replace the word rotor in line 16 with stator, as suggested by the Examiner. Applicants trust that this amendment will be sufficient to overcome the § 112 rejection.

Moving to the aforementioned § 103 rejection, it is noted that the Examiner rejected claims 10, 11, and 13-27, representing each of the pending claims, under 35 U.S.C.

§ 103(a) as being unpatentable over U.S. Patent No. 3,404,065 to Ingemarsson ("*Ingemarsson*") in view of *Lampenius*. In the Examiner's view, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the barrier member of *Lampenius* in a device such as *Ingemarsson*'s, to arrive at the claimed invention. Notwithstanding, it is important to note that the invention of *Lampenius* concerns a stationary screen utilized in cooperation with a rotor element for screening from the inside-out. In the meantime, *Ingemarsson* concerns a rotary screen in cooperation with a stator for screening from the outside-in. Even in this oversimplification of the two references, one can readily see that they operate in completely opposite manners and any attempted combination of the two references would not have been obvious to one of ordinary skill in the art at the time of the invention.

It is also respectfully submitted that a more detailed review of each of the references will show that not only would it not have been obvious to combine the two references, but the two references cannot be combined in the manner suggested by the Examiner. To begin, it is important to note that the design of the barrier/pulse element depends on the method of screening because there is a vast difference in the character of the pulses to be created in order to clear the screen depending on the method used.

In devices with a rotor and stationary screen, such as *Lampenius*, the inner chamber is located between the rotor and the screen. The fiber suspension is then pushed along by the barrier/pulse member with positive pressure forcing the fibrous material against the screen. The accept portion of the fibrous material filters through the screen toward the outlet. In the case of *Lampenius*, the larger particles forming portions of the

rejects are then moved relative to the barrier member along upper plane 3, as shown in FIG. 3a of *Lampenius*, toward the side plane 4. Once the material reaches the 90° bend between the upper plane 3 and the side plane 4, a negative pulse, or a zone of low pressure, is created. The zone of low pressure acts to pull material from the screen in an effort to clear the screen of reject material. In this regard, large negative pulses are essential. For example, in column 4, lines 16 through 20 of *Lampenius*, the specification states "this feature of side plane 4 being substantially perpendicular to the bottom plane is essential in order to produce pulses which are more effective in keeping the screen from plugging, as compared with rotors which have a curved surface." (emphasis added.)

In these types of apparatuses, the rotor is in contact with the reject, which is comprised of particles which are necessarily larger than the accepted particles. Such an apparatus is not capable of use with coarse suspensions, since there is a substantial risk of larger, coarse particles getting stuck and damaging the equipment. For example, large coarse particles may become lodged between the screen and the upper plane 3 of the barrier/pulse member. Such devices are therefore limited to fiber suspensions which are below certain limits of coarseness.

On the other hand, devices with a stator and a rotating screen, such as *Ingemarsson*, are particularly suited for coarse compositions. In such devices, the inner chamber is located between the screen and outer housing, such that the accepted materials travels through the screen to an accept outlet between the rotating screen and stator. It will be appreciated in this regard that the larger particles remain between the housing and the rotary screen. Accordingly, there is no opportunity for the

courser particles to be lodged between the barrier/pulse element and the screen. Further, the centrifugal force in the housing keeps the larger particles away from the screen and thus reduces wear on the screen.

A screening apparatus with a rotor provided with blades would simply not be used to screen coarse suspensions since there is a substantial risk of larger particles getting stuck and damaging the equipment. It is therefore highly unlikely that one skilled in the art would look to utilize the barrier member of *Lampenius* in a device such as *Ingemarsson's* to arrive at the presently claimed invention, as suggest by the Examiner.

In devices such as that presently claimed, where the suspension is screened from the outside-in, the pulses required to clear the screen are pressure pulses. Where the suspension is screened from the inside-out, such as in *Lampenius* (*Ingemarsson* is screened from the outside-in), the pulses needed to clear the screen travel the opposite direction. Thus, the barrier/pulse elements need to create a negative pressure pulse to pull the suspension in the opposite direction, from against the inner surface of the screen.

Because *Lampenius* and *Ingemarsson* are directed at completely opposite-acting devices, they are not candidates for combination, and cannot be combined to obviate the present invention without resort to inappropriate hindsight reconstruction using the present invention as a template. As such, each of claims 10, 11, and 13-27 is deemed allowable over the *Lampenius* and *Ingemarsson* references.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: January 9, 2006

Respectfully submitted,

By



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